

**APPENDIX C**

**GOALS AND OBJECTIVES SURVEY QUESTIONNAIRE**

Name: \_\_\_\_\_  
Agency: \_\_\_\_\_  
Phone: \_\_\_\_\_

**SURVEILLANCE REQUIREMENTS/TECHNOLOGY (SR/T)**  
**I-95 CORRIDOR PROJECT #3**  
**QUESTIONNAIRE FOR GOALS SURVEY**

**OVERALL GOAL**

*The overall goal of the Surveillance System is to acquire and provide traffic, travel, and environmental information along major roads and at key locations in a timely and cost-effective manner to enhance the safe and efficient movements of people and goods in the Corridor.*

Would you like to modify the above Goal Statement? If yes, please provide your proposed modifications:

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**SPECIFIC GOALS**

Please rate the following candidate, specific goals and provide additional goals as appropriate:

*The specific goals of the Corridor-wide Surveillance System are to acquire and provide information to:*

- |  |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|
| 1. Enhance traffic incident management                                 | Low                      | Medium                   | High                     |
| 2. Enhance real-time traffic control operations                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Support traffic law and regulation enforcement                      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Enhance traffic management during snow storms and other emergencies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Facilitate Travel Demand Management strategy implementation         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Improve multi-modal and inter-modal transportation operations       | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Enhance transportation systems planning database                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Support Traveler Information Services                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Other: _____  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

## OBJECTIVES

Candidate objectives were developed for each surveillance goal. Please rate them and provide additional objectives as appropriate.

### 1. Enhance traffic incident management

#### Objectives:

- a. Provide data for automated traffic incident detection
- b. Detect disabled vehicles and assistance requests
- c. Verify traffic incident reports
- d. Assess the severity of traffic incidents
- e. Provide information for coordinated incident responses
- f. Provide continuous tracking of HAZMAT carriers
- g. Other: \_\_\_\_\_

<u>Low</u>	<u>Medium</u>	<u>High</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### 2. Enhance real-time traffic control operations

#### Objectives:

- a. Improve ramp metering
- b. Support real-time, traffic adaptive control
- c. Facilitate reversible-lane operations
- d. Enhance HOV control & operations
- e. Accommodate priority vehicles (at signalized intersections and railroad crossings)
- f. Accommodate variable speed limit determination
- g. Support congestion pricing
- h. Other: \_\_\_\_\_

<u>Low</u>	<u>Medium</u>	<u>High</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Support traffic law and regulation enforcement

<u>Objectives:</u>	<u>Low</u>	<u>Medium</u>	<u>High</u>
a. Provide speed measurements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Provide weight measurements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Provide vehicle height and width measurements	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Determine vehicle occupancy (for HOV)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Enhance traffic management during snow storms and other emergencies

<u>Objectives:</u>	<u>Low</u>	<u>Medium</u>	<u>High</u>
a. Support adaptive control (adverse weather and emergency conditions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Support snow removal scheduling and operations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. Facilitate Travel Demand Management strategy implementation

<u>Objectives:</u>	<u>Low</u>	<u>Medium</u>	<u>High</u>
a. Identify traffic congestion locations and levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Characterize traffic demand levels (e.g., V/C vs. time of day)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Monitor air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Improve multi-modal and inter-modal transportation operations

Objectives:

- a. Track transit vehicle location and schedule adherence
- b. Provide transit vehicle tracks as probe data
- c. Provide link travel times for transit time of arrival estimates
- d. Provide passenger loading estimates
- e. Provide park-and-ride lot status
- f. Provide traveler security surveillance at transit stops and stations
- g. Other: \_\_\_\_\_

<u>Low</u>	<u>Medium</u>	<u>High</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. Enhance transportation systems planning database

Objectives:

- a. Provide traffic count data
- b. Provide VMT data
- c. Provide traffic composition data
- d. Provide delay data
- e. Provide vehicle O-D data
- f. Provide incident data (location, type, severity, time-of-day)
- g. Other: \_\_\_\_\_

<u>Low</u>	<u>Medium</u>	<u>High</u>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Support Traveler Information Services

You may skip the objectives listed below because similar information is sought in the questionnaire for Project #8 (TIS). They are included here for completeness.

Objectives:

	Low	Medium	High
a. Provide traffic conditions information (e.g., congestion, incident)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Provide roadway conditions information (e.g., closure, snow/ice)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Provide parking information (e.g., park-and-ride, at destination)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Provide urban transit information (e.g., times of arrival/departure and operational status)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Provide inter-urban transit information (e.g., times of arrival/departure and operational status)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TECHNOLOGY

1. Vision. Please rate the types of surveillance technology that may be used in your jurisdiction in the short-term and long-term.

SURVEILLANCE TYPE	Short-term (0-5 yrs.)			Long-term (5-20 yrs.)		
	Low	Med.	High	Low	Med.	High
Vehicle Detectors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Weigh-in-Motion (WIM) sensors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video image (CCTV) system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automated Vehicle Location (AVL)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Automated Vehicle Identification (AVI)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aerial Surveillance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Environmental Sensors:						
Pavement surface condition (dry/wet/icy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fog/visibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind speed/direction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Human Surveillance:						
Police Patrol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motorist Call-In	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Freeway Service Patrol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Commercial Traffic Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others (please describe):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Alternative Vehicle Detection Technologies: Please rate the likelihood of the following technologies being used in your jurisdiction in the future.

Technologies	High	Med	Low	Not Likely
Inductive loop	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnetic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnetometer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Pressure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sonic and Ultrasonic	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Infrared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Light-emission photo-electric	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Microwave/radar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Video image processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others (please describe):	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



# PRIVATE SECTOR PARTICIPATION

1. Do you receive or exchange traffic surveillance information with a private organization? Yes ☐ No ☐  
 If the above answer is "yes," please indicate the information you receive or exchange, and give names of partner(s).

Information Type	Receive from Private Partner	Provide to Private Partner	Names of private partner(s)
Incident & Congestion Reports	<input type="checkbox"/>	<input type="checkbox"/>	
Roadway Conditions	<input type="checkbox"/>	<input type="checkbox"/>	
Weather/Visibility	<input type="checkbox"/>	<input type="checkbox"/>	
Traffic Advisory	<input type="checkbox"/>	<input type="checkbox"/>	
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	

2. Regardless of whether or not your agency currently has a private partner, how would you rate the role of the private sector in supplementing traffic surveillance information in the I-95 Corridor? Not Significant ☐ Significant ☐ Very Significant ☐
3. Do you favor a public/private partnership in acquiring and providing surveillance information? Yes ☐ No ☐
4. Please rate the levels of difficulty to overcome the following challenges/issues in forming a public/private partnership to acquire and provide surveillance information to support the I-95 Corridor.

CHALLENGES	Moderately Difficult	Difficult	Very Difficult
Ownership of information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sharing of right-of-way for surveillance infrastructure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Funding arrangement (e.g., cost and profit sharing)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liability (e.g., due to inaccurate information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to maintain a long-term partnership	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Responsive to each other's needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Competition among private organizations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Loral Aerosys**  
**I-95 Corridor Coalition**  
**Transportation Information Services**  
**Public Private Partnership Questionnaire**

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October 31, 1994

Our primary purpose' in this questionnaire is to establish the potential for public/private partnerships in the development, implementation and/or operation of new technology TIS systems. To begin, let me list some Transportation Information Services to establish what they are.

- pre-trip telephone service;
- pre-trip radio/TV information;
- enroute electronic signage;
- in vehicle computer mapping system;
- in vehicle highway advisory radio system;
- in vehicle telephone;
- in vehicle fax;
- dedicated cable TV channels ;
- interactive kiosks;
- in vehicle Global Positioning System devices;
- hand held computers.
- CB radio
- on-line computer services
- dial in computer services

## **II. Current Situation:**

2. Do you think any of these services are effective? Which ones?

3. Do you believe that personal and/or commercial travel could be improved through the use of these services along the I-95 Corridor? If so, which ones?

4. Does your company currently have any role in the TIS business?

### **A. IF YES:**

- What type of service or product?
- In what geographical location?
- Is your company a user of this service?
- What specific information do you use?
- Is your company a technical systems developer?
- Do you provide TIS to others? If so, what information do you provide?
- Is your company a reseller of these services?
- Do you buy or sell advertisements on these services?
- Would you be willing to provide information and documentation about your products?

(CONTINUE TO QUESTION 5)

### **B. IF NO:**

Are you considering any of these services for the future?

IF YES,  
Which ones?

IF NOT,  
What are the impediments to your interest?

(CONTINUE TO QUESTION 12)

5. Is your experience with TIS satisfactory technically?

6. Who are your users?

7. Do you charge for the service, or is it provided as an incentive for other services?

IF THEY CHARGE: (IF NOT, SKIP TO QUESTION 11)

8. How do you currently charge?

9. Is your experience with TIS satisfactory financially?

**10.** Do your customers resell the service?

**11.** Do you use a surveillance system? If so, what kind?

cellular call in;

cameras;

aerial;

911;

human observers;

other.

A. IF YES,

11.1 Are you satisfied with the surveillance system?

11.2 Would you be willing to share or sell raw surveillance data with the agencies along the corridor?

### III. Future Projections:

12. Are you planning to expand your current services?

A. IF YES:

- geographically?

- into other technologies?
- into other markets?
- packaged with other services?
- would you consider including advertising?
- what information would you like to add to your services?

B. IF NO:

why not?

- technically difficult?
- financially unrewarding?
- regulatory impediments?
- haven't considered the possibility?
- other?

V. Interest in Partnering with the Public Sector:

13. Does your company have a product which might improve Transportation Information Services on I-95?

14: Who in your company is responsible for this product development?

15. Would you consider partnering with public sector? What are the major pros and cons?

A. IF YES, (IF NO CONTINUE TO 18)

16. With whom?

17. On what projects?

18. Do you have any experience with partnering?

B. IF YES, ( IF NOT CONTINUE TO 21)

19. What has your experience been?

- positive points:
- negative points:

20. What is your company's role in the partnership?

IF NO, AND CONTINUATION FOR YES GROUP

21. Which of the following factors would improve public/private partnership possibilities? If several, please rank them.

- A clear role for each sector;
- A clearer definition of the market;
- Technological improvements;
  - in data collection
  - data processing
  - communications systems and information dissemination
- Better technical compatibility among systems;
- Streamlining decision-making;
- Better return on investment;
- Other.

IF NOT INTERESTED IN FUTURE TIS DEVELOPMENT, TERMINATE HERE WITH THANKS.

22. Is part of your business strategy to develop TIS products?

- for profit
- for your employees
- for marketing purposes; e.g. to enhance other existing products
- for public benefit
- a combination of the above

23. Are you interested in the efforts of the I-95 Coalition to further develop possibilities in this area.

22. Would you support standardization of technical specifications for TIS along the I-95 Corridor?

23. Would you wish to participate in this effort?

24. Is there a particular product or application the Coalition could help you develop?

IF YES, (IF NO, CONTINUE TO QUESTION 26)

25. Is this product intended for:

- the consumer market
- your own employees
- commercial users
- wholesalers
- advertisers

26. Have you conducted any market research into TIS services? Would you be willing to share its general results with the Coalition?

27. Have you considered products or services which would provide information on how to use mass transit, Amtrak, airport transportation, or how to switch from one mode to another?

27A. Have you considered products or services which would provide information to fleet operations for freight transportation?

IF YES, (IF NO, CONTINUE TO QUESTION 30)

28. Have you assessed the size of the market for this product?

29. Have you prepared a product development budget and return on investment projection?

30. Is your company affected by the Clean Air Act?

IF YES, ( IF NO, CONTINUE TO QUESTION 32)

31. Are you under any pressure to encourage

- ride sharing,
- van pooling
- transit use?

32. Would your company be interested in participating in a multi-year research and development process for TIS on the I-95 Corridor? IF YES, Is there anyone other than yourself we follow up with?

Name:

Address:

Phone:

Fax:

33. As a personal matter, which TIS services would you use to plan travel throughout the corridor?

- airport access information
- airline arrival and departures
- highway traffic information
- construction locations
- routing instructions



- transit information
- rail information
- tourist information
- other

Thank you for taking the time to answer our questions. Would you like to receive a copy of the results when they are available? Please check the address on this cover letter to make sure it is accurate.

END